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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,889	02/27/2004	William C. Cain	K35A1449	9310

35219 7590 10/10/2006

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EXAMINER

SUN, SCOTT C

ART UNIT PAPER NUMBER

2182

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/789,889

Applicant(s)

CAIN ET AL.

Examiner

Scott Sun

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 2 recites the limitation "the valid response". There is insufficient antecedent basis for this limitation in the claim.
4. Claim(s) 9 and 10 contain the trademark/trade name USB™ and Firewire™. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe "cable" and, accordingly, the identification/description is indefinite. For the purpose of continuing examination, examiner will interpret the limitations to be "an industry standard cable".

5. The following rejections are made based on the examiner's best interpretation of the claims in light of the 35 USC 112 rejections above.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Hanan et al (US Patent #6,898,730).

8. Regarding claim 1, Hanan discloses in an external disk drive system (system in figure 1) comprising a disk drive (disk drive 100), a bridge controller (interface controller 116) comprising a plurality of bridge controller host (BCH) interfaces (bus connections 110 and 112 that connect to host interfaces 106 and 108) adapted to establish communication between the external disk drive system and an external device (host computer 102 and host interfaces 106, 108) via a plurality of different communication mediums (bus connections between host computer 102 and disk drive 100 shown in figure 1), a method for switching from a first BCH interface communicating with the external device via a first communication medium to a second BCH interface during the operation of the external disk drive system, the method comprising:

sensing a connecting of a second communication medium to the external disk drive via the second bch interface (column 4, lines 44-48);

determining an interface priority of the second communication medium (timeout response of second connection) over an interface priority of the first communication medium (timeout response of first connection; column 4, lines 48-53);

dismounting the disk drive from the first communication medium based on the determining (column 3, lines 53-56; column 4, lines 51-53); examiner notes that the switch connects the disk drive to the host computer system through either the first or the second bus connection, and switches between the two connections based on the timeout determination of the two connections (one with a lower timeout will be used, or if both are equivalent, then the first connection will be used);

mounting the disk drive to the second communication medium wherein the external disk drive system remains operational during the dismounting and mounting (hot-plugging; column 4, lines 54-57).

9. Regarding claim 2, Hanan discloses claim 1 and further discloses the dismounting further comprising: communicating a request for dismounting the first communication medium to the external device via the bridge controller host interface (ping message for second connection); dismounting the disk drive from the first communication medium if the valid response is received from the external device (response received from the second connection; column 4, lines 48-53);

10. Regarding claim 3, Hanan discloses claim 1 and further discloses wherein the external device is a host computer (figure 1).

11. Regarding claim 4, Hanan discloses claim 1 and further discloses wherein the external disk drive system is adapted to communicate with a plurality of external devices (host interfaces 106 and 108) via the plurality of BCH interfaces and the plurality of different communication mediums (figure 1).

12. Regarding claim 5, Hanan discloses claim 1 and further discloses wherein the determining, the dismounting and the mounting are performed by firmware executed in the bridge controller (column 4, lines 7-9).

13. Regarding claim 6, Hanan discloses claim 1 and further discloses wherein the interface priority of the first communication medium is pre-assigned (column 4, lines 21-31).

14. Regarding claim 7, Hanan discloses claim 1 and further discloses wherein the interface priority of the second communication medium is pre-assigned (column 4, lines 21-31). Examiner notes that second connection is used only when first connection has a timeout and second connection does not.

15. Regarding claim 8, Hanan discloses claim 1 and further discloses wherein the external disk drive system further comprises a storage device (storage medium 122) in communication with the external device via the first communication medium, and wherein the storage device remains in communication with the external device (column 4, lines 54-67). Examiner notes that when the first connection is determined to be unfit for communication, the second connection provides interface redundancy to allow the disk drive system to continue communication with the host computer system through a hot-plugging manner.

16. Regarding claim 9, Hanan discloses claim 1 and further discloses wherein the first communication medium comprises a USB cable (column 3, lines 37-46).

17. Regarding claim 10, Hanan discloses claim 1 and further discloses, wherein the second communication medium comprises a Firewire™ cable (column 3, lines 37-46).

Examiner notes that Hanan teaches the bus connection can be any type that allows communication between a disk drive and a host computer, which would include buses using USB and Firewire protocols.

### ***Conclusion***

18. Other publications are cited to further show the state of the art with respect to multiple connections between external disk drives and host systems. Refer to form 892, "Notice of References Cited", for a complete list of relevant prior arts cited by the examiner.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Sun whose telephone number is (571) 272-2675. The examiner can normally be reached on M-F, 10:30am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SS



KIM HUYNH  
SUPERVISORY PATENT EXAMINER  
10/2/06